

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001277**Date Inspected:** 18-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Hu Wei Qing**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower mock ups and OBG components**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) inspector, Scott Croff, was present at Zhenhua Port Machinery Company, Ltd (ZPMC) to observe the scheduled mock up construction and production construction of the SAS Superstructure.

Bay 7: The QA inspector observed ZPMC non-destructive testing (NDT) persons E Shuiqin, Li Li Ming and Xue Hairong conducting ultrasonic testing (UT) on various completed welds of floor beam diaphragm assemblies. The QA inspector noted that approximately 14 different assemblies are laying in Bay 7 and being worked on or inspected by ZPMC personnel. As the QA inspector was observing the UT being conducted by the NDT personnel, the QA inspector noted that the welds being tested by UT were identified as being visually acceptable by ZPMC Quality Control (QC) inspectors. The QA inspector noted that as the NDT personnel are completing their inspections, they are identifying the welds as accepted or rejected, with their name and date written near the welds. The QA inspector proceeded to conduct random visual examination and ultrasonic verification of these welds. At the time of 10% examination of FB015-04 weld 021 & weld 026, FB015-03 weld 043 and FB016-04 weld 043, the welds appeared to be conforming to the requirements of AWS D1.5 2002 Table 6.3. The QA inspector noted that during the 10% examination of FB008-01 weld 043, there was an ultrasonic indication that does not satisfy the UT acceptance criteria of AWS D1.5 2002 Table 6.3. The QA inspector showed this indication to the ZPMC NDT personnel who were present in Bay 7 (listed above). The ZPMC NDT personnel then re-inspected the weld area and the QA inspector noted that there a discussion between themselves. The QA inspector observed the NDT personnel write indication location markings on the weld after they re-inspected it. During the QA inspector's examinations, the QA inspector noted that the termination area between weld 043 and 044 and the diaphragm plates of the various floor beam assemblies, several of the terminations do not appear to be

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UT OK  
E SHW 9in  
VT OK  
11.6

SPC  
1112  
X=40  
11.6

100-100A  
W/C 0708362083  
B700083-2  
073030201  
Mg 01-2052  
T=30

14:57 01-21-08

